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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/414,082 | 10/06/1999 | KENNETH M. BUCKLAND | 062891...340 | 2772 |

7590 11/06/2002
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EXAMINER

PHILPOTT, JUSTIN M

| ART UNIT | PAPER NUMBER |
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2665

DATE MAILED: 11/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/414,082

Applicant(s)

BUCKLAND ET AL.

Examiner

Justin M Philpott

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1,2,4,5,7-11,13,15-19,21,22 and 24-26 is/are rejected.
- 7) ☒ Claim(s) 3,6,12,14,20 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following minor informalities: either “in” (page 4, line 6) should be changed to “prior to” or “to” (page 4, line 7) should be changed to “through” in order to remain consistent with the disclosed invention, and “though” (page 7, line 7) should be changed to “through”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4, 13, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term “exceeding 10^{-5} to 10^{-9} ” in claims 4, 13, and 21 renders the claim indefinite. Specifically, “ 10^{-5} to 10^{-9} ” defines a range, and it is unclear whether “exceeding” this range requires a value greater than 10^{-9} or requires a value greater than 10^{-5} .

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 5, 8-11, 16-19, 22 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,195,090 to Bolliger et al.

Regarding claim 1, Bolliger teaches a method in a TDM network (col. 3, lines 54-55) having a plurality of switchable paths (207, see FIG. 2) to a common destination (100) wherein the method comprises:

receiving TDM traffic from a traffic source (203) as a plurality of copies of traffic routed along a plurality of paths (207) (see also col. 2, lines 50-52),

configuring a TDM switch (201) to provide a route to a common destination (100) for each one of the paths (207),

determining a qualified copy of the traffic (col. 20, lines 63-68, and col. 21, lines 25-42), and

discarding all copies of the traffic except for the qualified copy (col. 21, lines 39-40) such that only the qualified copy is passed to the TDM switch for routing to the common destination.

While Bolliger alone does not specifically teach each one of the paths (207) having a receive circuit, Bolliger recognizes in FIG. 1 (prior art to Bolliger) that having a receive circuit (interface 132) for each path (107) is well known in the art for the purpose of qualifying received communications (e.g., qualifying received communications to pass only those of a particular format -- see col. 9, lines 2-21 regarding interfaces 142 and lines 27-39 regarding interfaces 132

for each path 107 and having the same functionality as interfaces 142). Thus, at the time of the invention it would have been obvious for one having ordinary skill in the art to include a receive circuit for each path as suggested by Bolliger (regarding FIG. 1) in the method taught by Bolliger for the purpose of qualifying received communications.

Regarding claim 2, Bolliger further teaches the step of determining comprises receiving management traffic (signal quality field, col. 12, lines 62-68) on a path indicating a degradation or loss of signal on the path.

Regarding claim 5, Bolliger further teaches between transmission from 203 to 202 (in FIG. 2) operably setting a kill-bit (CRC field, see col. 20, lines 37-44) which indicates whether the traffic should be switched or discarded.

Regarding claims 8 and 9, Bolliger does not specifically disclose utilizing virtual tributaries or STS-1 formats, however, routing in a TDM network using the formats of virtual tributaries or STS-1 is commonly known in the art. Thus, at the time of the invention it would have been obvious for one having ordinary skill in the art to use VT or STS-1 formats for the TDM traffic, and to configure the TDM switch to route traffic for a given VT, in the teachings of Bolliger.

Regarding claim 10, Bolliger teaches a TDM network as described above regarding claim 1 and further teaches, between transmission from 203 to 202 (in FIG. 2), operably setting a kill-bit (CRC field, see col. 20, lines 37-44) which indicates whether the traffic should be switched or discarded. Since Bolliger further teaches transmission by air (203 to 202), it is preferable to operably set a kill-bit after air transmission (wherein error is more likely to occur). However, if the network does not involve transmission by air, it would be advantageous to operably set a kill-

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bit at receive circuits which are coupled to monitor signals on respective paths to the TDM switch. Thus, at the time of the invention it would have been obvious for one having ordinary skill in the art to have receive circuits operable to set a kill-bit to accompany TDM traffic sent to the TDM switch to indicate whether the TDM traffic should be switched or discarded.

Furthermore, Bolliger teaches a memory (buffer 603, see FIG. 6 and col. 20, line 52) operable to receive traffic with accompanying kill-bits (CRC field, see col. 20, lines 37-44), operable to store the traffic having an accompanying kill-bit that has not been set, and operable to discard the traffic having an accompanying kill-bit that has been set. Bolliger also teaches, as discussed above, a communication path (207) operable to convey qualifying information (signal quality field) for the paths.

Regarding claim 11, see the above regarding claim 10 and claim 2.

Regarding claim 16, see the above regarding claim 10 and claim 8.

Regarding claim 17, see the above regarding claim 10 and claim 9.

Regarding claim 18, Bolliger teaches the method described above regarding claim 1 and further teaches cell 202 comprising a conventional computer input and output device (see col. 11, lines 54-57). Thus, Bolliger anticipates the method of claim 1 realized in a program embodied in computer-readable media.

Regarding claim 19, see the above regarding claim 18 and claim 2.

Regarding claim 22, see the above regarding claim 18 and claim 5.

Regarding claim 25, see the above regarding claim 18 and claim 8.

Regarding claim 26, see the above regarding claim 18 and claim 9.

6. Claims 7, 15 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,903,371 to Arecco et al. in view of Bolliger.

Regarding claim 7, Arecco teaches a network (see FIG. 1) comprising a first path (5-8) in a first direction (13) around a SONET UPSR and a second path (9-12) in a second direction (14) around the SONET UPSR. However, Arecco does not teach the steps of the method described in claim 1 for providing traffic qualification.

Bolliger teaches the method of claim 1 as discussed above. Bolliger applies the steps of this method to a wireless access telephone-to-telephone network to provide improved traffic qualification means. At the time of the invention it would have been obvious for one having ordinary skill in the art to apply the steps of the above method of Bolliger to a SONET UPSR such as that taught by Arecco in order to provide improved traffic qualification means in a SONET UPSR.

Regarding claim 15, see the above regarding claim 7 and claim 10.

Regarding claim 24, see the above regarding claim 7 and claim 18.

Allowable Subject Matter

7. Claims 3, 6, 12, 14, 20 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 4, 13, and 21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,647,035 to Cadeddu et al. discloses a ring network communication structure having communications on two optical carriers, wherein each carrier travels in opposite directions, and

U.S. Patent No. 6,023,452 to Shiragaki discloses first and second communication paths which are monitored to detect failure and are switched at nodes according to signal performance.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M Philpott whose telephone number is 703.305.7357. The examiner can normally be reached on M-F, 8:30am-5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on 703.308.6602. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9314 for regular communications and 703.872.9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.305.4750.

Justin M Philpott



November 1, 2002



HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600